APPENDIX 2

AIR QUALITY and GHG IMPACT ANALYSES

BOB HOPE AIRPORT-HOLLYWOOD WAY
NEW METROLINK STATION

CITY OF BURBANK, CALIFORNIA

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INTRODUCTION

The purpose of this report is to assess the potential air quality impacts during construction and operation of the proposed Bob Hope Airport-Hollywood Way Metrolink Station ("the Project").

PROJECT DESCRIPTION

The Project site is located along the existing railroad corridor consisting of a single railroad track that crosses over North Hollywood Way on a single track railroad bridge. Two roadways run parallel to and along each side of the Project site – two-lane San Fernando Road, located to the northeast of the Project site, and four-lane San Fernando Boulevard, located to the southwest of the Project site. The Project site is directly northwest of the six-lane Hollywood Way, which crosses under San Fernando Road and San Fernando Boulevard.

Land uses in the immediate Project area are generally light industrial and/or airport related. These land uses dominate the Project area on all sides, but especially to the east, south and west. The Burbank Bob Hope Airport is located to the southwest of the Project site. The nearest residential uses are multi-family homes, located to the north over 225 feet from the proposed platform location across San Fernando Road. Interstate 5 (I-5) is located approximately ¼ mile to the north of the Project site.

An approximately 680-foot long side platform to the southwest (airport side) of the existing single track would be constructed with this project. A pedestrian sidewalk and transit plaza would be built adjacent to the platform and San Fernando Boulevard. Passengers loading and unloading would directly access the platform or the sidewalk from the southwest and would not cross the existing railroad track. The platform and transit plaza improvements would include railings, lighting, signage, seating, bike racks, and other appurtenances related to a passenger rail station. Proposed improvements adjacent to the platform on San Fernando Boulevard include a bus drop off area that would provide connections to local Metro bus routes and Burbank Bob Hope Airport Shuttles, a "kiss-and-ride" drop off area, and curb and gutter improvements adjacent to the sidewalk/transit plaza.

The railroad corridor is adjacent to San Fernando Boulevard and does not provide sufficient right of way to include a parking facility adjacent to the station platform. At the southwesterly corner of the intersection of San Fernando Boulevard and Hollywood Way, the Burbank/Bob Hope Airport has an existing parking lot that could be made available for the Metrolink station. Pedestrians would access the station from the southwest across the intersection of San Fernando Boulevard and Hollywood Way. An existing crosswalk is located on the easterly side of the intersection. With the parking facility located on the southwesterly corner of the intersection, the existing traffic signal will be modified to include a pedestrian crossing on the westerly side of the intersection to provide pedestrians a direct access to the parking facility without having to cross the intersection twice. Additional improvements will include reconstructing the median island and curb ramps for ADA compliance.

The Project would begin construction mid-2014 with substantial completion in early 2015. Project construction would involve minor site work and would take place intermittently over

approximately nine months. Construction activities would take place completely within the railroad ROW. Construction equipment would access the Project site from San Fernando Boulevard to the southwest of the Project site.

ATMOSPHERIC SETTING

REGIONAL CLIMATE

The North Pacific high-pressure cell is the dominant climatic influence over the eastern North Pacific Ocean, particularly during the summer. The high-pressure cell produces a predominantly northwesterly flow of maritime air over the California coastal waters. During winter, the Pacific High weakens and moves south, resulting in weaker and less persistent northwesterly winds along the California coast than in the warmer half of the year.

As the air mass approaches the coast of California, this large-scale circulation pattern is modified by local influences. The differential heating between the desert and the adjacent Pacific Ocean modifies the prevailing winds, enhancing them during the warmer half of the year and weakening them during the colder portion. On a local and sub-regional basis, the air flow in California is channeled by its mountain ranges and valley. The coastal mountain ranges limit the flow of maritime air into the interior of California. This transition from a cool and damp marine environment to a dry and warm continental climate therefore occurs over a fairly short distance.

SOUTH COAST AIR BASIN

The South Coast Air Basin (SCAB) is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Basin-wide conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity levels.

All seasons generally exhibit onshore flows during the day and offshore flows at night, after the land cools below the temperature of the ocean. The likelihood of strong offshore flows, including Santa Ana winds, is greater during winter than during summer [California Air Resources Board (CARB) 1984].

The topography and climate of Southern California combine to produce generally poor air quality in the Air Basin. The combination of low temperature inversion heights; meteorological conditions such as light winds, limited turbulent mixing, and extensive sunlight; and topographical features such as adjacent mountain ranges, hinder dispersion of air pollutants. These factors all contribute to poor air quality, especially in inland valleys of the basin.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed Bob Hope Airport-Hollywood Way Metrolink Station project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards** [1]		**National Standards** [2]		
		Concentration [3]	**Method** [4]	**Primary** [3,5]	**Secondary** [3,6]	**Method** [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.075 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10)[8]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[8]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[11,12]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

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Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. Draft standards were published. The anticipated future 8-hour standard was 0.065 ppm. Environmental organizations generally praised this proposal. Most manufacturing, transportation or power generation groups opposed the new standard as economically unwise in an uncertain fiscal climate. In recognition of the fact that a stronger ozone standard could adversely impact employment, that proposal has been placed on indefinite hold.

A new federal one-hour standard for nitrogen dioxide (NO_2) has also recently been adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

BASELINE AIR QUALITY

Existing levels of ambient air quality, historical trends, and projections in the project area are best documented from measurements taken at the closest monitoring station. In this case, the closest air monitoring station SCAQMD is in Burbank. Table 3 summarizes the last five years of published monitoring data from this station. As shown in this table, ozone and particulates are the two most significant local air quality concerns. These are also pollutants for which the SCAB is currently in non-attainment.

1. Photochemical smog (ozone) levels often exceed standards. The 1-hour state standard was violated an average of 14 times a year in the last five years near Burbank. The 8-hour state ozone standard has been exceeded an average of 20 times a year in the past five years. The Federal eight-hour ozone standard has averaged around 10 violations per year during this period. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

2. Carbon monoxide (CO) measurements at the Burbank station have declined throughout the last decade. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum one- or 8-hour CO levels at the closest air monitoring station are less the 25 percent of their most stringent standards because of continued vehicular improvements. These data suggests that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse air quality effects would be expected.

3. PM-10 levels as measured at Burbank, periodically exceed the state 24-hour standard, but no measurements in excess of the national 24-hour particulate standard has been recorded in the last five years. State PM-10 standards are exceeded an average of seven percent of all days per year. Year 2012 showed the fewest violations in recent years.

4. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area. Slightly less than two percent of all days exceeded the current national standard of 35 $\mu g/m^3$.

5. More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site because background levels in Burbank never exceed allowable levels. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or CO without any threat of violating applicable AAQS.

Table 3
Air Quality Monitoring Summary (2008-2012)
(Number of Days Standards Were Exceeded, and
Maximum Levels During Such Violations)
(Entries shown as ratios = samples exceeding standard/samples taken)

Pollutant/Standard	2008	2009	2010	2011	2012
Ozone					
1-Hour > 0.09 ppm (S)	20	16	3	8	8
8-Hour > 0.07 ppm (S)	34	28	9	10	17
8- Hour > 0.075 ppm (F)	17	14	4	6	8
Max. 1-Hour Conc. (ppm)	0.133	0.145	0.111	0.120	0.117
Max. 8-Hour Conc. (ppm)	0.110	0.097	0.084	0.084	0.088
Carbon Monoxide					
1-hour > 20. ppm (S)	0	0	0	0	0
8- Hour > 9. ppm (S,F)	0	0	0	0	0
Max 1-hour Conc. (ppm)	3.0	3.4	3.0	2.8	xx
Max 8-hour Conc. (ppm)	2.5	2.9	2.4	2.4	2.4
Nitrogen Dioxide					
1-Hour > 0.18 ppm (S)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.105	0.088	0.082	0.068	0.079
Inhalable Particulates (PM-10)					
24-hour > 50 $\mu g/m^3$ (S)	5/54	10/60	0/55	2/55	1/60
24-hour > 150 $\mu g/m^3$ (F)	0/54	0/60	0/55	0/55	0/60
Max. 24-Hr. Conc. ($\mu g/m^3$)	61.	76.	50.	60.	55.
Ultra-Fine Particulates (PM-2.5)					
24-Hour > 35 $\mu g/m^3$ (F)	2/118	11/357	4/364	5/365	4/355
Max. 24-Hr. Conc. ($\mu g/m^3$)	68.9	67.5	43.7	47.8	54.2

xx=data not reported in annual SCAQMD summaries

S=State Standard
F=Federal Standard

Source: South Coast AQMD – Burbank Air Quality Monitoring Station

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification sets a later attainment deadline (2024), but also requires the air basin to adopt even more stringent emissions controls.

Table 4

South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2008[a]	2010[b]	2015[b]	2020[b]
NOx	917	836	667	561
ROG	632	596	545	525
CO	3,344	3,039	2,556	2,281
PM-10	308	314	328	340
PM-2.5	110	110	111	113

[a]2008 Base Year.
[b]With current emissions reduction programs and adopted growth forecasts.
Source: California Air Resources Board, California Emissions Projection Analysis Model, 2009

In previous attainment plan reviews, EPA disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relies on PM-2.5 control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified issues. The recently adopted 2012 AQMP being readied for ARB submittal to EPA as part of the California State Implementation Plan (SIP) is expected to remedy these deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked around eight years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now forced to develop an AQMP for the long since revoked one-hour federal ozone standard. However, because attainment strategies for the federal one-and eight-hour ozone standards are essentially identical, the 2012 AQMP for ozone is anticipated to be an appropriate plan for both standards.

Developments such as the proposed Bob Hope Airport-Hollywood Way Metrolink Station project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

IMPACT CRITERIA

The proposed project is statutorily exempt from CEQA. However, CEQA implementation guidelines for projects in the South Coast Air Basin contain the only published criteria under which the severity of an air quality impact can be quantified. Within a NEPA context, if CEQA threshold levels of emissions were to be exceeded, an "impact" is presumed to exist.

Air quality impacts are considered "significant" if under CEQA they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of possible air quality impacts. A project would have an air quality impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.

b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.

c. Results in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

d. Exposes sensitive receptors to substantial pollutant concentrations.

e. Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered an impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impacts independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered to have an impact under CEQA guidelines.

Table 5
Daily Emissions Thresholds

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.

- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary impact criteria related to toxic, air contaminants (TAC) or hazardous air pollutants (HAP). Except for the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust generated by heavy construction equipment and project-related diesel bus traffic, there are no secondary impact indicators associated with project construction or operations.

For PM-2.5 exhaust emissions, recently adopted policies require the gradual conversion of on-road delivery fleets and off-road construction equipment to cleaner forms of combustion. Because health risks from toxic air contaminants (TAC's) are cumulative over an assumed 70-year lifespan, measurable off-site public health risk from diesel TAC exposure would occur for only a brief portion of a project lifetime, and only in dilute quantity.

SENSITIVE RECEPTORS

Air quality impacts are analyzed relative to those persons with the greatest sensitivity to air pollution exposure. Such persons are called "sensitive receptors." Sensitive population groups include young children, the elderly and the acutely and chronically ill (especially those with cardio-respiratory disease). Residential areas adjacent to a proposed site are considered to be sensitive to air pollution exposure because they may be occupied for extended periods, and residents may be outdoors when exposure is highest. The proposed project site is surrounded by industrial uses. The nearest sensitive receptors are residences more than 225 feet northeast of the project site.

CONSTRUCTION ACTIVITY IMPACTS

Dust is typically the primary concern during construction of new improvements. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into midrange average values. This assumption may or may not be totally applicable to site-specific conditions on the proposed project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

Average daily PM-10 emissions during site grading and other disturbance are shown estimated to be about 10 pounds per acre. This estimate presumes the use of reasonably available control measures (RACMs). The SCAQMD requires the use of best available control measures (BACMs) for fugitive dust from construction activities. With the use of BACMs, daily dust emission rates can be reduced to 1-2 pounds per acre per day.

Current research in particulate-exposure health suggests that the most adverse effects derive from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. A limited amount of construction activity particulate matter is in the PM-2.5 range. PM-2.5 emissions are estimated to comprise 10-20 percent of PM-10.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard.

CalEEMod was developed by the SCAQMD to provide a computer model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

Although exhaust emissions will result from on and off-site heavy equipment, the exact types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Estimated construction emissions were modeled using CalEEMod2013.2.2 to identify maximum daily emissions for each pollutant during project construction. Construction emissions include all emissions associated with the construction equipment, worker trips, and supply truck deliveries.

The proposed improvements, consisting of 37,080 square feet of paved area with a canopy structure, was modeled in CalEEMod2013.2.2. The modeled prototype construction equipment fleet and schedule is indicated in Table 6 and based on CalEEMod defaults for a project of this size.

Table 6

Construction Activity Equipment Fleet

Phase Name and Duration	Equipment
Site Prep (20 days)	1 Grader
	1 Loader/Backhoe
Grading (20 days)	1 Concrete Saw
	1 Dozer
	2 Loader/Backhoes
Construction (20 days)	1 Forklift
	1 Trencher
	1 Welder
	1 Loader/Backhoe
Paving (20 days)	1 Paver
	1 Loader/Backhoe

	1 Mixer
	1 Roller

Utilizing this indicated equipment fleet shown in Tables 6 the following worst case daily construction emissions are calculated by CalEEMod and are listed in Table 7.

Table 7

Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5	CO_2 (e)
2014	1.7	14.5	9.6	0.0	1.1	0.9	1,341.1
Impact Thresholds	75	100	550	150	150	55	-

Peak daily construction activity emissions are estimated be below SCAQMD impact thresholds without the need for added mitigation.

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over the relatively brief four month construction period for the proposed project due to the lack of health risk associated with such a brief exposure.

LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project the nearest sensitive use would be the residential development, 400 feet from the bulk of construction activities in/around the canopy structure, such that the maximum distance of 100 meters was selected for analysis.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute measurably to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

The following thresholds and emissions in Table 8 are therefore determined (pounds per day):

Table 8
LST and Project Emissions (pounds/day)

LST 1 acre/ 100 meters E San Fernando Valley	**CO**	**NOx**	**PM-10**	**PM-2.5**
SCAQMD Threshold	1,158	94	26	8
Max On-Site Emissions*	10	15	1	1

*CalEEMod Output in Appendix

LSTs were compared to the maximum daily construction activities. As seen above, emissions are below the LST for construction.

OPERATIONAL IMPACTS

Vehicular Emissions

The proposed project will accommodate 14 train passenger automobiles in the new on-site parking area. "Kiss-and-Ride" drop-offs would add another 90 daily trips. The airport shuttle would pass once every five minutes, but the shuttle is an existing activity. Similarly, buses will stop to discharge or take on passengers, but they also are operating on existing routes. A total of 118 new one-way-trips (58 in/59 out) will be added to the local roadway system. The project traffic study demonstrates that the intersections near the project site will continue to operate at level-of-service "A". The addition of 24 PM peak hour trips will have a negligible local air quality impact for a pollutant such as CO. The Caltrans CALINE4 computer model predicts that 24 cars per hour will generate less than 0.01 ppm of localized CO in the station vicinity compared to the most stringent one-hour CO standard of 20 ppm.

Construction of the new platform/station may also create small air quality benefits by promoting Antelope Valley Line Metrolink use to access the airport instead of driving and parking at the RITC. The number of diverted trips would be very small, but air quality positive. A small VMT reduction may also result from Metrolink passengers living near the new station who currently are dropped off/picked up at the Downtown Burbank or Sun Valley stations. Given the

projection of 100 boardings and 100 alightings per day at the new station, the anticipated air quality benefit of a new station is obviously quite limited, but the proposed action is more air quality positive than the no-project alternative.

PM CONFORMITY HOT SPOT ANALYSIS

Any project that receives federal support through either thru funding or regulatory approvals must demonstrate hot spot conformity. The South Coast Air Basin is located in a designated non-attainment area for PM-2.5. Under federal guidelines, projects of air quality concern (POAQC) require a quantitative PM-2.5 analysis if federal funding or approvals are involved. A project would not be a POAQC if it attracts only a small number of diesel vehicles congregating at a single location.

Most guidance as to what constitutes a POAQC is roadway vehicle emissions based. For example, federal guidelines consider projects associated with roadways carrying 10,000 diesel-powered trucks to be a POAQC. Conversely, an increase in arrivals at a bus terminal of less than five buses during a peak hour is cited as an example of a project that is not a POAQC.

Construction and operation of the proposed station will not change the number of Metrolink trains operating on the Antelope Valley Line. The only change in train operations created by a new station would be an average of 24 stops per day that involve 60 seconds of idling for passenger boardings or alightings. For an anticipated 100 boardings or alightings on 30 weekday trains, an average of 3-4 passengers will alight and 3-4 will board each train.

Stopping/idling times will be very short. Among the 100 daily riders using the new station, one-half will use private automobiles and one-half will use an airport shuttle or public bus. These buses and shuttles already operate on the street systems around the proposed station and are thus not "new" sources of exhaust emissions. The buses are mainly diesel powered and the shuttles are typically gasoline powered. Many passenger bus/shuttle systems are in the process of being converted to compressed natural gas. Train idling and ground transportation by bus/shuttle site access contributes negligible amounts of additional diesel particulate matter because:

1. Number of Antelope Valley Line trains will not increase and train idle times during stops will be brief.

2. Bus/shuttle systems already operate on local streets and will not increase in operating frequency,

3. Very few buses or shuttles will stop at the station during the 1,000 passes per day because they will only discharge or pickup 50 passengers during a typical weekday and fewer on the weekends.

The proposed project is not a POAQC that would require a PM "hot spot" analysis.

CONSTRUCTION EMISSIONS MITIGATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD impact thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Recommended mitigation includes:

Fugitive Dust Control

- Suspend the use of all construction equipment during first-stage smog alerts.
- Prepare and implement a high wind dust control plan.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material or require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD impact thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control includes:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

GREENHOUSE GAS EMISSIONS

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions,
- Requires immediate "early action" control programs on the most readily controlled GHG sources,
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels,
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020,and
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been

developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

IMPACT THRESHOLDS

While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the projects direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing the measures to help reduce the potential effects of the project. (Source: SER, Chapter 13, Energy, Climate Change).

Caltrans does consider climate change to be a potential threat to safety and mobility. Consideration of climate change is required for all state transportation projects per policy as follows:

Adaptation: Adjustment to transportation infrastructure in response to actual or expected climatic effects includes the development of methods to protect people, places, and resources from the impacts of global climate change. This can include, but is not limited to, taking future climate change impacts such as sea level rise into consideration, and planning and implementing appropriate design changes to bridges and other appropriate transportation infrastructure. (Source: Directors Policy, DP-30, June 22, 2012).

An analysis of climate change impacts is a CEQA requirement not needed for NEPA clearance. Project construction-related GHG emissions are, however, quantified below as an informational item.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

The build-out timetable for this project is assumed to be less than one year. During project construction, the CalEEMod2013.2.2 computer model predicts that the construction activities will generate the annual $CO_2(e)$ emissions identified in Table 11.

Table 11
Construction Emissions (Metric Tons $CO_2(e)$)

	$CO_2(e)$
Year 2014	44.7
Amortized	**1.5**

*CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually *de minimis*.

Project Operational GHG Emissions

Very minor GHG reductions would result from small VMT savings and/or from diversion of single passenger automobile commuter train travel. The accrued benefit is likely limited, but preferable to the no-project alternative.

Consistency with GHG Plans, Programs and Policies

The City of Burbank Sustainability Action Plan identifies a series of goals (called "action items") that can be adopted to achieve urban sustainability, promote healthy economies, advance social equity and protect the world's ecosystem. This measure applicable to this project is as follows:

> Measure 13.3. Public Transit Coordination – Proactively promote the development of better public transit services in Burbank through collaboration with regional and subregional transit planning groups as called for in the draft Mobility Element.

Implementation of the proposed project assists in reducing the number of automotive vehicles on the road by encouraging public transit. The proposed project would not conflict with an adopted plan, policy, or regulation pertaining to GHGs and is expected to be nominally GHG positive.

APPENDIX

CALEEMOD2013.2.2 COMPUTER MODEL OUTPUT

- Daily Emissions (lbs per day)
- Annual Emissions (tons per year)

Bob Hope Airport Metrolink Station

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	37.08	1000sqft	0.85	37,080.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Metrolink station concrete foundation with canopy

Construction Phase - 20 days site prep, 20 days grading, 20 days paving, 20 days construction

Off-road Equipment - Prep: 1 grader, 1 loader/backhoe

Off-road Equipment - Grading: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Paving: 1 mixer, 1 paver, 1 roller, 1 loader/backhoe

Off-road Equipment - Construction: 1 forklift, 1 loader/backhoe, 1 welder, 1 trencher

Trips and VMT - 5 workers pre, 10 workers grading, 18 workers paving, 16 workers construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	PhaseEndDate	9/25/2014	9/26/2014
tblConstructionPhase	PhaseEndDate	8/22/2014	8/28/2014
tblConstructionPhase	PhaseStartDate	8/29/2014	9/1/2014
tblConstructionPhase	PhaseStartDate	7/26/2014	8/1/2014
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	PhaseName		Site Preparation
tblTripsAndVMT	PhaseName		Grading
tblTripsAndVMT	PhaseName		Building Construction
tblTripsAndVMT	PhaseName		Paving

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	1.6871	14.5139	9.6469	0.0137	0.2163	0.9315	1.1185	0.0710	0.8913	0.9623	0.0000	1,334.5361	1,334.5361	0.3103	0.0000	1,341.0520
Total	**1.6871**	**14.5139**	**9.6469**	**0.0137**	**0.2163**	**0.9315**	**1.1185**	**0.0710**	**0.8913**	**0.9623**	**0.0000**	**1,334.5361**	**1,334.5361**	**0.3103**	**0.0000**	**1,341.0520**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	1.6871	14.5139	9.6469	0.0137	0.2163	0.9315	1.1185	0.0710	0.8913	0.9623	0.0000	1,334.5361	1,334.5361	0.3103	0.0000	1,341.0520
Total	**1.6871**	**14.5139**	**9.6469**	**0.0137**	**0.2163**	**0.9315**	**1.1185**	**0.0710**	**0.8913**	**0.9623**	**0.0000**	**1,334.5361**	**1,334.5361**	**0.3103**	**0.0000**	**1,341.0520**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9700	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.9700**	**4.0000e-005**	**3.9200e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.1200e-003**	**8.1200e-003**	**2.0000e-005**	**0.0000**	**8.6100e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9700	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.9700**	**4.0000e-005**	**3.9200e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**8.1200e-003**	**8.1200e-003**	**2.0000e-005**	**0.0000**	**8.6100e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2014	6/27/2014	5	20	
2	Grading	Grading	6/28/2014	7/25/2014	5	20	
3	Paving	Paving	8/1/2014	8/28/2014	5	20	
4	Building Construction	Building Construction	9/1/2014	9/26/2014	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Trenchers	1	4.00	80	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	0	4.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003			0.0000			0.0000
Off-Road	1.4341	14.4817	7.3936	9.3700e-003		0.8920	0.8920		0.8206	0.8206		995.1971	995.1971	0.2941		1,001.3730
Total	**1.4341**	**14.4817**	**7.3936**	**9.3700e-003**	**0.0265**	**0.8920**	**0.9185**	**2.8600e-003**	**0.8206**	**0.8235**		**995.1971**	**995.1971**	**0.2941**		**1,001.3730**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0257	0.0322	0.3971	7.1000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.8000e-004	0.0153		63.6446	63.6446	3.6200e-003		63.7206
Total	**0.0257**	**0.0322**	**0.3971**	**7.1000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.8000e-004**	**0.0153**		**63.6446**	**63.6446**	**3.6200e-003**		**63.7206**

3.2 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003			0.0000			0.0000
Off-Road	1.4341	14.4817	7.3936	9.3700e-003		0.8920	0.8920		0.8206	0.8206	0.0000	995.1971	995.1971	0.2941		1,001.3730
Total	**1.4341**	**14.4817**	**7.3936**	**9.3700e-003**	**0.0265**	**0.8920**	**0.9185**	**2.8600e-003**	**0.8206**	**0.8235**	**0.0000**	**995.1971**	**995.1971**	**0.2941**		**1,001.3730**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0257	0.0322	0.3971	7.1000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.8000e-004	0.0153		63.6446	63.6446	3.6200e-003		63.7206
Total	**0.0257**	**0.0322**	**0.3971**	**7.1000e-004**	**0.0559**	**5.3000e-004**	**0.0564**	**0.0148**	**4.8000e-004**	**0.0153**		**63.6446**	**63.6446**	**3.6200e-003**		**63.7206**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0753	0.0000	0.0753	0.0414	0.0000	0.0414			0.0000			0.0000
Off-Road	1.4929	12.4922	8.8528	0.0121		0.9304	0.9304		0.8904	0.8904		1,207.2469	1,207.2469	0.2515		1,212.5281
Total	**1.4929**	**12.4922**	**8.8528**	**0.0121**	**0.0753**	**0.9304**	**1.0057**	**0.0414**	**0.8904**	**0.9317**		**1,207.2469**	**1,207.2469**	**0.2515**		**1,212.5281**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0513	0.0643	0.7942	1.4200e-003	0.1118	1.0500e-003	0.1128	0.0296	9.6000e-004	0.0306		127.2893	127.2893	7.2400e-003		127.4413
Total	**0.0513**	**0.0643**	**0.7942**	**1.4200e-003**	**0.1118**	**1.0500e-003**	**0.1128**	**0.0296**	**9.6000e-004**	**0.0306**		**127.2893**	**127.2893**	**7.2400e-003**		**127.4413**

3.3 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0753	0.0000	0.0753	0.0414	0.0000	0.0414			0.0000			0.0000
Off-Road	1.4929	12.4922	8.8528	0.0121		0.9304	0.9304		0.8904	0.8904	0.0000	1,207.2469	1,207.2469	0.2515		1,212.5281
Total	**1.4929**	**12.4922**	**8.8528**	**0.0121**	**0.0753**	**0.9304**	**1.0057**	**0.0414**	**0.8904**	**0.9317**	**0.0000**	**1,207.2469**	**1,207.2469**	**0.2515**		**1,212.5281**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0513	0.0643	0.7942	1.4200e-003	0.1118	1.0500e-003	0.1128	0.0296	9.6000e-004	0.0306		127.2893	127.2893	7.2400e-003		127.4413
Total	**0.0513**	**0.0643**	**0.7942**	**1.4200e-003**	**0.1118**	**1.0500e-003**	**0.1128**	**0.0296**	**9.6000e-004**	**0.0306**		**127.2893**	**127.2893**	**7.2400e-003**		**127.4413**

3.4 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2331	11.8542	7.3554	0.0111		0.7457	0.7457		0.6898	0.6898		1,103.2826	1,103.2826	0.2973		1,109.5248
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2331**	**11.8542**	**7.3554**	**0.0111**		**0.7457**	**0.7457**		**0.6898**	**0.6898**		**1,103.2826**	**1,103.2826**	**0.2973**		**1,109.5248**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0924	0.1157	1.4295	2.5500e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7300e-003	0.0551		229.1207	229.1207	0.0130		229.3943
Total	**0.0924**	**0.1157**	**1.4295**	**2.5500e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7300e-003**	**0.0551**		**229.1207**	**229.1207**	**0.0130**		**229.3943**

3.4 Paving - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2331	11.8542	7.3554	0.0111		0.7457	0.7457		0.6898	0.6898	0.0000	1,103.2826	1,103.2826	0.2973		1,109.5248
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2331**	**11.8542**	**7.3554**	**0.0111**		**0.7457**	**0.7457**		**0.6898**	**0.6898**	**0.0000**	**1,103.2826**	**1,103.2826**	**0.2973**		**1,109.5248**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0924	0.1157	1.4295	2.5500e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7300e-003	0.0551		229.1207	229.1207	0.0130		229.3943
Total	**0.0924**	**0.1157**	**1.4295**	**2.5500e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7300e-003**	**0.0551**		**229.1207**	**229.1207**	**0.0130**		**229.3943**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5393	9.6415	6.8996	8.5600e-003		0.7848	0.7848		0.7359	0.7359		844.6650	844.6650	0.2507		849.9302
Total	**1.5393**	**9.6415**	**6.8996**	**8.5600e-003**		**0.7848**	**0.7848**		**0.7359**	**0.7359**		**844.6650**	**844.6650**	**0.2507**		**849.9302**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0657	0.6754	0.7202	1.3100e-003	0.0375	0.0133	0.0508	0.0107	0.0122	0.0229		133.8520	133.8520	1.1800e-003		133.8769
Worker	0.0821	0.1029	1.2707	2.2700e-003	0.1788	1.6900e-003	0.1805	0.0474	1.5400e-003	0.0490		203.6628	203.6628	0.0116		203.9060
Total	**0.1479**	**0.7782**	**1.9908**	**3.5800e-003**	**0.2163**	**0.0150**	**0.2313**	**0.0581**	**0.0138**	**0.0719**		**337.5148**	**337.5148**	**0.0128**		**337.7829**

3.5 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5393	5.1451	6.8996	8.5600e-003		0.7848	0.7848		0.7359	0.7359	0.0000	844.6650	844.6650	0.2507		849.9302
Total	**1.5393**	**5.1451**	**6.8996**	**8.5600e-003**		**0.7848**	**0.7848**		**0.7359**	**0.7359**	**0.0000**	**844.6650**	**844.6650**	**0.2507**		**849.9302**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0657	0.6754	0.7202	1.3100e-003	0.0375	0.0133	0.0508	0.0107	0.0122	0.0229		133.8520	133.8520	1.1800e-003		133.8769
Worker	0.0821	0.1029	1.2707	2.2700e-003	0.1788	1.6900e-003	0.1805	0.0474	1.5400e-003	0.0490		203.6628	203.6628	0.0116		203.9060
Total	**0.1479**	**0.7782**	**1.9908**	**3.5800e-003**	**0.2163**	**0.0150**	**0.2313**	**0.0581**	**0.0138**	**0.0719**		**337.5148**	**337.5148**	**0.0128**		**337.7829**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.515437	0.060435	0.179988	0.139880	0.041945	0.006639	0.015487	0.028746	0.001918	0.002517	0.004333	0.000596	0.002079

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9700	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003
Unmitigated	0.9700	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7342					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003
Total	**0.9700**	**4.0000e-005**	**3.9200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.1200e-003**	**8.1200e-003**	**2.0000e-005**		**8.6100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7342					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.9000e-004	4.0000e-005	3.9200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		8.1200e-003	8.1200e-003	2.0000e-005		8.6100e-003
Total	**0.9700**	**4.0000e-005**	**3.9200e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**8.1200e-003**	**8.1200e-003**	**2.0000e-005**		**8.6100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Bob Hope Airport Metrolink Station

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	37.08	1000sqft	0.85	37,080.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Metrolink station concrete foundation with canopy

Construction Phase - 20 days site prep, 20 days grading, 20 days paving, 20 days construction

Off-road Equipment - Prep: 1 grader, 1 loader/backhoe

Off-road Equipment - Grading: 1 concrete saw, 1 dozer, 2 loader/backhoes

Off-road Equipment - Paving: 1 mixer, 1 paver, 1 roller, 1 loader/backhoe

Off-road Equipment - Construction: 1 forklift, 1 loader/backhoe, 1 welder, 1 trencher

Trips and VMT - 5 workers pre, 10 workers grading, 18 workers paving, 16 workers construction

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	20.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	20.00
tblConstructionPhase	PhaseEndDate	9/25/2014	9/26/2014
tblConstructionPhase	PhaseEndDate	8/22/2014	8/28/2014
tblConstructionPhase	PhaseStartDate	8/29/2014	9/1/2014
tblConstructionPhase	PhaseStartDate	7/26/2014	8/1/2014
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	PhaseName		Site Preparation
tblTripsAndVMT	PhaseName		Grading
tblTripsAndVMT	PhaseName		Building Construction
tblTripsAndVMT	PhaseName		Paving

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.0601	0.4953	0.3502	4.9000e-004	6.7600e-003	0.0337	0.0405	1.9800e-003	0.0315	0.0335	0.0000	44.2525	44.2525	0.0103	0.0000	44.4678
Total	**0.0601**	**0.4953**	**0.3502**	**4.9000e-004**	**6.7600e-003**	**0.0337**	**0.0405**	**1.9800e-003**	**0.0315**	**0.0335**	**0.0000**	**44.2525**	**44.2525**	**0.0103**	**0.0000**	**44.4678**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.0601	0.4504	0.3502	4.9000e-004	6.7600e-003	0.0337	0.0405	1.9800e-003	0.0315	0.0335	0.0000	44.2524	44.2524	0.0103	0.0000	44.4677
Total	**0.0601**	**0.4504**	**0.3502**	**4.9000e-004**	**6.7600e-003**	**0.0337**	**0.0405**	**1.9800e-003**	**0.0315**	**0.0335**	**0.0000**	**44.2524**	**44.2524**	**0.0103**	**0.0000**	**44.4677**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**9.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1770	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1770**	**0.0000**	**4.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.8000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1770	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1770**	**0.0000**	**4.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.8000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2014	6/27/2014	5	20	
2	Grading	Grading	6/28/2014	7/25/2014	5	20	
3	Paving	Paving	8/1/2014	8/28/2014	5	20	
4	Building Construction	Building Construction	9/1/2014	9/26/2014	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Building Construction	Trenchers	1	4.00	80	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	0	4.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00		14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.1448	0.0739	9.0000e-005		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	9.0283	9.0283	2.6700e-003	0.0000	9.0843
Total	**0.0143**	**0.1448**	**0.0739**	**9.0000e-005**	**2.7000e-004**	**8.9200e-003**	**9.1900e-003**	**3.0000e-005**	**8.2100e-003**	**8.2400e-003**	**0.0000**	**9.0283**	**9.0283**	**2.6700e-003**	**0.0000**	**9.0843**

3.2 Site Preparation - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.6000e-004	3.7700e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5501	0.5501	3.0000e-005	0.0000	0.5508
Total	**2.5000e-004**	**3.6000e-004**	**3.7700e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5501**	**0.5501**	**3.0000e-005**	**0.0000**	**0.5508**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.1448	0.0739	9.0000e-005		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	9.0283	9.0283	2.6700e-003	0.0000	9.0843
Total	**0.0143**	**0.1448**	**0.0739**	**9.0000e-005**	**2.7000e-004**	**8.9200e-003**	**9.1900e-003**	**3.0000e-005**	**8.2100e-003**	**8.2400e-003**	**0.0000**	**9.0283**	**9.0283**	**2.6700e-003**	**0.0000**	**9.0843**

3.2 Site Preparation - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.6000e-004	3.7700e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5501	0.5501	3.0000e-005	0.0000	0.5508
Total	**2.5000e-004**	**3.6000e-004**	**3.7700e-003**	**1.0000e-005**	**5.5000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5501**	**0.5501**	**3.0000e-005**	**0.0000**	**0.5508**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.1249	0.0885	1.2000e-004		9.3000e-003	9.3000e-003		8.9000e-003	8.9000e-003	0.0000	10.9520	10.9520	2.2800e-003	0.0000	10.9999
Total	**0.0149**	**0.1249**	**0.0885**	**1.2000e-004**	**7.5000e-004**	**9.3000e-003**	**0.0101**	**4.1000e-004**	**8.9000e-003**	**9.3100e-003**	**0.0000**	**10.9520**	**10.9520**	**2.2800e-003**	**0.0000**	**10.9999**

3.3 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.3000e-004	7.5400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.1001	1.1001	7.0000e-005	0.0000	1.1015
Total	**5.0000e-004**	**7.3000e-004**	**7.5400e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.1001**	**1.1001**	**7.0000e-005**	**0.0000**	**1.1015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0149	0.1249	0.0885	1.2000e-004		9.3000e-003	9.3000e-003		8.9000e-003	8.9000e-003	0.0000	10.9520	10.9520	2.2800e-003	0.0000	10.9999
Total	**0.0149**	**0.1249**	**0.0885**	**1.2000e-004**	**7.5000e-004**	**9.3000e-003**	**0.0101**	**4.1000e-004**	**8.9000e-003**	**9.3100e-003**	**0.0000**	**10.9520**	**10.9520**	**2.2800e-003**	**0.0000**	**10.9999**

3.3 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.3000e-004	7.5400e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.1001	1.1001	7.0000e-005	0.0000	1.1015
Total	**5.0000e-004**	**7.3000e-004**	**7.5400e-003**	**1.0000e-005**	**1.1000e-003**	**1.0000e-005**	**1.1100e-003**	**2.9000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**1.1001**	**1.1001**	**7.0000e-005**	**0.0000**	**1.1015**

3.4 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1185	0.0736	1.1000e-004		7.4600e-003	7.4600e-003		6.9000e-003	6.9000e-003	0.0000	10.0088	10.0088	2.7000e-003	0.0000	10.0654
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0123**	**0.1185**	**0.0736**	**1.1000e-004**		**7.4600e-003**	**7.4600e-003**		**6.9000e-003**	**6.9000e-003**	**0.0000**	**10.0088**	**10.0088**	**2.7000e-003**	**0.0000**	**10.0654**

3.4 Paving - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.3100e-003	0.0136	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9802	1.9802	1.2000e-004	0.0000	1.9827
Total	**9.0000e-004**	**1.3100e-003**	**0.0136**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.9802**	**1.9802**	**1.2000e-004**	**0.0000**	**1.9827**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0123	0.1185	0.0736	1.1000e-004		7.4600e-003	7.4600e-003		6.9000e-003	6.9000e-003	0.0000	10.0088	10.0088	2.7000e-003	0.0000	10.0654
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0123**	**0.1185**	**0.0736**	**1.1000e-004**		**7.4600e-003**	**7.4600e-003**		**6.9000e-003**	**6.9000e-003**	**0.0000**	**10.0088**	**10.0088**	**2.7000e-003**	**0.0000**	**10.0654**

3.4 Paving - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-004	1.3100e-003	0.0136	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.9802	1.9802	1.2000e-004	0.0000	1.9827
Total	**9.0000e-004**	**1.3100e-003**	**0.0136**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.9802**	**1.9802**	**1.2000e-004**	**0.0000**	**1.9827**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.0964	0.0690	9.0000e-005		7.8500e-003	7.8500e-003		7.3600e-003	7.3600e-003	0.0000	7.6627	7.6627	2.2700e-003	0.0000	7.7104
Total	**0.0154**	**0.0964**	**0.0690**	**9.0000e-005**		**7.8500e-003**	**7.8500e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**7.6627**	**7.6627**	**2.2700e-003**	**0.0000**	**7.7104**

3.5 Building Construction - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-004	7.0700e-003	8.2300e-003	1.0000e-005	3.7000e-004	1.3000e-004	5.0000e-004	1.1000e-004	1.2000e-004	2.3000e-004	0.0000	1.2101	1.2101	1.0000e-005	0.0000	1.2103
Worker	8.0000e-004	1.1600e-003	0.0121	2.0000e-005	1.7600e-003	2.0000e-005	1.7700e-003	4.7000e-004	2.0000e-005	4.8000e-004	0.0000	1.7602	1.7602	1.1000e-004	0.0000	1.7624
Total	**1.5000e-003**	**8.2300e-003**	**0.0203**	**3.0000e-005**	**2.1300e-003**	**1.5000e-004**	**2.2700e-003**	**5.8000e-004**	**1.4000e-004**	**7.1000e-004**	**0.0000**	**2.9703**	**2.9703**	**1.2000e-004**	**0.0000**	**2.9727**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0154	0.0515	0.0690	9.0000e-005		7.8500e-003	7.8500e-003		7.3600e-003	7.3600e-003	0.0000	7.6627	7.6627	2.2700e-003	0.0000	7.7104
Total	**0.0154**	**0.0515**	**0.0690**	**9.0000e-005**		**7.8500e-003**	**7.8500e-003**		**7.3600e-003**	**7.3600e-003**	**0.0000**	**7.6627**	**7.6627**	**2.2700e-003**	**0.0000**	**7.7104**

3.5 Building Construction - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-004	7.0700e-003	8.2300e-003	1.0000e-005	3.7000e-004	1.3000e-004	5.0000e-004	1.1000e-004	1.2000e-004	2.3000e-004	0.0000	1.2101	1.2101	1.0000e-005	0.0000	1.2103
Worker	8.0000e-004	1.1600e-003	0.0121	2.0000e-005	1.7600e-003	2.0000e-005	1.7700e-003	4.7000e-004	2.0000e-005	4.8000e-004	0.0000	1.7602	1.7602	1.1000e-004	0.0000	1.7624
Total	**1.5000e-003**	**8.2300e-003**	**0.0203**	**3.0000e-005**	**2.1300e-003**	**1.5000e-004**	**2.2700e-003**	**5.8000e-004**	**1.4000e-004**	**7.1000e-004**	**0.0000**	**2.9703**	**2.9703**	**1.2000e-004**	**0.0000**	**2.9727**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.515437	0.060435	0.179988	0.139880	0.041945	0.006639	0.015487	0.028746	0.001918	0.002517	0.004333	0.000596	0.002079

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1770	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004
Unmitigated	0.1770	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004
Total	**0.1770**	**0.0000**	**4.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.8000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1340					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	4.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	9.2000e-004	9.2000e-004	0.0000	0.0000	9.8000e-004
Total	**0.1770**	**0.0000**	**4.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**9.2000e-004**	**9.2000e-004**	**0.0000**	**0.0000**	**9.8000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation